

Abstract

A hollow stepped article is formed from a solid blank to reduce the material cost, and cracking is prevented in a stepped portion of large diameter when a portion of the blank is deformed by its radial expansion. A hollow stepped shaft is formed by holding an upper and a lower part axially of a solid rod-like blank with an upper and a lower die, respectively, which have a stepped recess of large diameter in a region where they are opposed to each other; compressing the blank from both its axially opposite sides with an upper and a lower punch each of which is smaller in diameter than the blank, thereby extruding the blank so that an axial hollow is formed therein about its axis in each of its upper and lower parts and that a portion of the blank opposed to the stepped recess of large diameter expands in diameter and deforms into that recess while leaving a solid plug-like portion between the punches; and thereafter further compressively moving one of the punches to shear the solid plug-like portion and force it out of the blank, whereby the blank is formed with a stepped portion of large diameter by radially expanding deformation in a region intermediate between its opposed ends or at one of these ends and with a continuous axial hollow about its axis.